

CLAIMS

1. A method for producing a silicon wafer having a crystal orientation $\langle 110 \rangle$ from a silicon single crystal ingot grown by Floating Zone method (FZ method), wherein, at least, an FZ silicon single crystal ingot is grown by being made to be dislocation-free by Dash Necking method using a seed crystal having its crystal axis inclined at a specified angle from a crystal orientation $\langle 110 \rangle$, and the grown FZ silicon single crystal ingot is sliced at the just angle of a crystal orientation $\langle 110 \rangle$ to produce a silicon wafer having a crystal orientation $\langle 110 \rangle$.
2. The method for producing a silicon wafer according to Claim 1, wherein the sliced silicon wafer having a crystal orientation $\langle 110 \rangle$ is made to be a perfect circle by processing of chamfering.
3. The method for producing a silicon wafer according to Claim 1 or 2, wherein the specified angle of inclining the seed crystal is 1° to 30° .
4. The silicon wafer having a crystal orientation $\langle 110 \rangle$ produced by the method of producing a silicon wafer according to any one of

Claims 1 to 3.